

Specific Interference Analysis

This application complies with interference protection under 47 C.F.R. § 74.1204 as documented below.

This application proposes a move from the construction permit site to an existing tower. The proposed location is 110 meters above ground on a structure whose overall height is 141 meters above ground. The tower was constructed prior to 1996.

A site change proposed in the instant application is in compliance with the requirements of Public Notice DA-03-2095, FM Translator Auction No. 83 Non-Mutually Exclusive Applications dated June 30, 2003, Footnote 8. The change is a minor modification as demonstrated in Figure 1. There is significant overlap of the authorized and proposed 60 dBu F(50,50) contours. The change creates no new mutual exclusivities as shown in the allocation table in this exhibit.

As tabulated below, this proposal is fully spaced under §74.1204(a) with respect to all other facilities, permits and applications with the exception of second adjacent channel WDCG, Durham, North Carolina, and third adjacent channel WTQR, Winston-Salem, North Carolina. The construction permit site is also short spaced to both facilities. The Desired to Undesired (D/U) contour method shows that, as with the construction permit site, the proposed translator facilities are unlikely to interfere with the licensed operations.

WTQR operates with 100 kW ERP and the HAAT along the radial toward the proposed translator site is 443 meters. The predicted WTQR signal strength at the proposed translator site is 67.9 dBu. The interference signal strength for third adjacent channels is therefore 107.9 dBu. As the graph in this exhibit shows, the predicted 107.9 dBu contour from

the proposed Shively 6812-1 antenna never reaches the ground, and therefore never encounters population. Since there is no population in the predicted interference area, there is no predicted interference to WTQR.

WDCG has licensed facilities, construction permit facilities, and an application to modify its construction permit. Only the licensed and reserved facilities are predicted to receive interference by normal contour methods. The licensed WDCG facilities operate with 100 kW and a HAAT of 317 meters on a direct line to the proposed translator facilities. The predicted WDCG signal strength is 65.9 dBu at the proposed translator site. The interfering contour using the D/U method is 105.9 dBu. As the graph in this exhibit shows, the predicted 105.9 dBu contour from the proposed Shively 6812-1 antenna never reaches the ground, and therefore never encounters population. Since there is no population in the predicted interference area, there is no predicted interference to WDCG. If and when WDCG constructs the authorized facilities or the requested facilities, this translator will comply with contour protection without the use of the D/U methodology.

Terrain Data

Terrain data is extracted from the V-Soft Communications NED 03 terrain database. The NED 03 database is derived from the USGS National Elevation Data 30 meter terrain database. The USGS National Elevation Dataset has been developed by merging the highest-resolution, best-quality elevation data available across the United States into a seamless raster format. NED is the result of the maturation of the USGS effort to provide 1:24,000-scale Digital Elevation Model (DEM) data for the conterminous US and 1:63,360-scale DEM data for Alaska. Height above average terrain and the distance to the 60 dBu contour are tabulated at 30° increments in this exhibit.

Nonionizing Radiation Exposure

The electromagnetic exposure at 2 meters above ground, calculated using the worst case method in Bulletin OST-65, is 0.000075 W/cm^2 , which is less than .04% of the maximum uncontrolled/public limit, which is de minimus. The proposed site is fenced and locked. Signs will be posted at the access points to the water tower instructing workers how to insure that the translator is not operating when they need to climb to an elevation where the exposure could exceed FCC limits.

Allocation Table

Wake Forest University
Allocation Study

REFERENCE CH# 284D - 104.7 MHz, Pwr= 0.013 kW, HAAT= 102.1 M, COR= 342 M DISPLAY DATES
36 04 58.0 N. Average Protected F(50-50)= 6.3 km DATA 09-20-07
79 46 08.0 W. SEARCH 09-21-07

CH CITY	CALL	TYPE STATE	ANT	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
284C Charlotte	WKQC	LIC NC	DCY	222.2 41.6	124.13 BLH19920416KB	35 15 06.0 80 41 12.0	100.000 369	180.7 570	77.9 Cbs Radio Holdings Inc.	-62.56*<	26.54
281C Winston-salem	WTQR	LIC NC	CN	301.0 120.6	63.40 BLH19960111KD	36 22 28.0 80 22 31.0	100.000 443	12.3 763	84.6 Clear Channel Broadcasting	45.44	-21.41*<
286C0 Durham	WDCG	LIC NC	CN	112.9 293.3	59.84 BLH19880721KD	35 52 20.0 79 09 29.0	100.000 317	10.2 465	72.9 Capstar Tx Limited Partner	42.69	-13.35*<
286C1 Durham One Step Application	WDCG	RSV NC		112.9 293.3	59.84	35 52 20.0 79 09 29.0	100.000 299	10.1 455	72.2 Capstar Tx Limited Partner	42.84	-12.61*<
286C1 Durham One Step Application	WDCG	APP NC	NCX	115.3 295.9	95.12 BMPH20070921ACO	35 42 50.0 78 49 04.0	73.000 339	9.8 443	71.9 Capstar Tx Limited Partner	78.35	23.01
286C1 Durham	WDCG	CP NC	NCX	115.3 295.9	95.12 BPH20020808AAB	35 42 50.0 78 49 04.0	78.000 321	9.7 425	71.2 Capstar Tx Limited Partner	78.44	23.66
284C1 Crewe Transmitter located in Zone 2.	WPZZ	LIC VA	DCN	52.7 233.8	202.28 BLH19920211KA	37 10 15.0 77 57 16.0	100.000 299	168.4 399	70.4 Radio One Licenses, Llc	27.20	109.65
283C Bluefield	WHAJ	LIC WV	EY	316.2 135.3	181.47 BLH20000330ACB	37 15 05.0 81 11 20.0	100.000 472	126.8 1276	85.2 Monterey Licenses, Llc	48.62	87.82
285C2 Roanoke	WZBL	LIC VA	ZCX	354.4 174.3	143.88 BLH20040723ADP	37 22 23.0 79 55 40.0	14.500 282	86.8 699	59.0 Capstar Tx Limited Partner	50.91	76.25
284C2 La Grange counterproposal in MB Doc. No. 05-16.	AL9809	RSV NC		119.2 300.4	214.06 RM11295	35 07 39.0 77 42 59.0	50.000 150	135.8 179	50.2	71.37	140.68
284C2 La Grange	WZUP	CP NC	CX	119.6 300.8	216.10 BPH20060510AAF	35 06 23.0 77 42 20.0	50.000 142	135.0 173	49.5 Conner Media, Inc.	74.14	143.49

Terrain database is NED 03 SEC
ERP and HAAT on direct-line with reference station.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.
"<" = Contour overlap

Distance to Contour Tabulation

Call Letters: W284BNmod
 File Number: BNPFT20030828BIF
 Latitude: 36-04-58 N
 Longitude: 079-46-08 W
 ERP: 0.013 kW
 Channel: 284
 Frequency: 104.7 MHz
 AMSL Height: 341.5 m
 Elevation: 231.5 m
 HAAT: 101.48 m
 Horiz. Antenna Pattern: Omni
 Vert. Elevation Pattern: No

Type of contour: FCC
 Location Variability: 50.0 %
 Time Variability: 50.0 %
 # of Radials Calculated: 360
 Field Strength: 60.00 dBuV/m

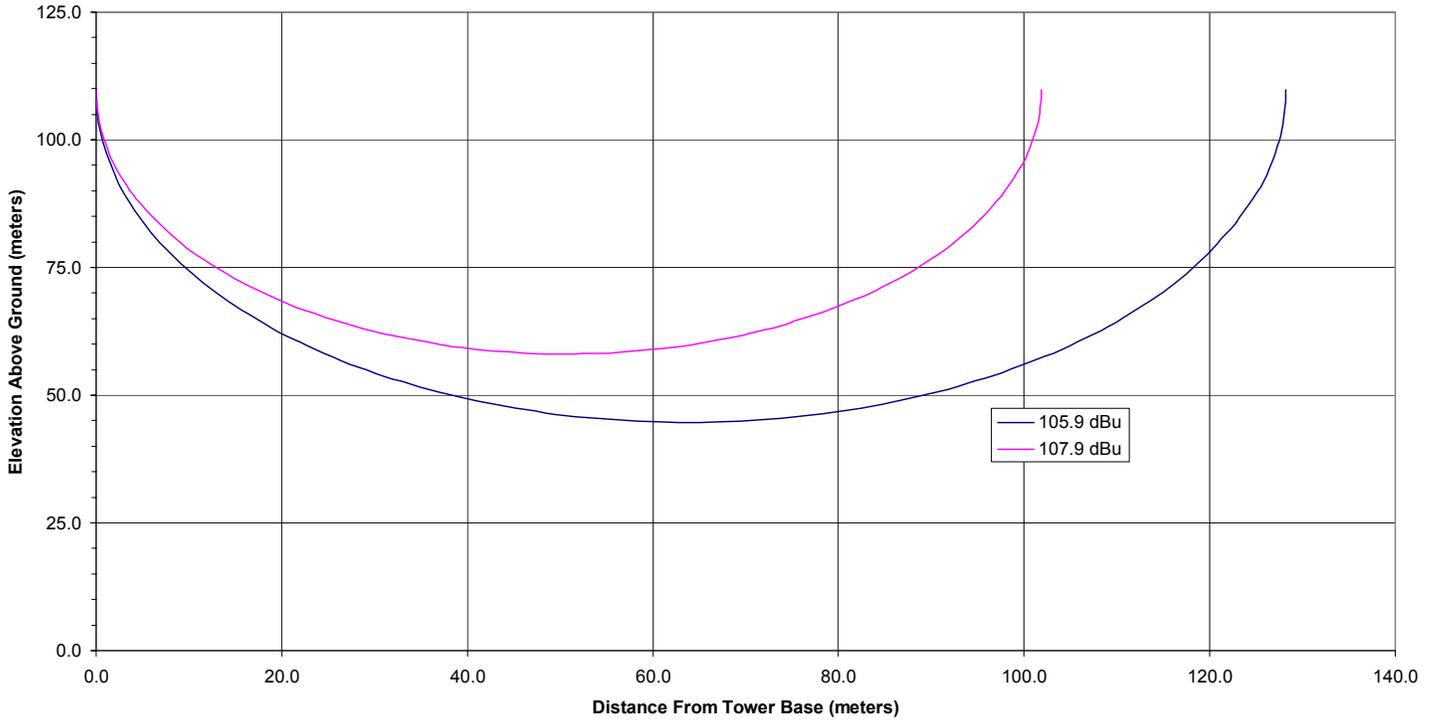
Primary Terrain: NED 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second World Terrain

Bearing (deg)	Distance (km)	HAAT (m)
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0.0	6.30	102.1
30.0	6.45	106.7
60.0	6.89	123.0
90.0	6.95	125.5
120.0	6.90	123.6
150.0	6.70	115.7
180.0	6.09	95.4
210.0	6.08	95.1
240.0	5.63	82.1
270.0	5.30	72.8
300.0	5.60	81.2
330.0	6.12	96.2

Average HAAT for radials shown: 101.6 m
 Maximum HAAT for radials shown: 125.5 m

Interference Contour Vertical Plot Using D/U Ratio Method

Vertical Plot of 105.9 and 107.9 dBu Contours



Timothy L. Warner, Inc.

W284BNmod
BNPFT20030828BIF
Latitude: 36-04-58 N
Longitude: 079-46-08 W
ERP: 0.013 kW
Channel: 284
Frequency: 104.7 MHz
AMSL Height: 341.5 m
Elevation: 231.5 m
Horiz. Pattern: Omni

W284BN.C
BNPFT20030828BIF
Latitude: 36-05-59 N
Longitude: 079-45-47 W
ERP: 0.01 kW
Channel: 284
Frequency: 104.7 MHz
AMSL Height: 439.0 m
Elevation: 241.0 m
Horiz. Pattern: Omni

W284BN
Present and Proposed Contours
21 September 2007
Figure 1

